

WHAT IS CLAIMED IS:

1. An automatic focusing apparatus comprising:

a focus lens used to make focus adjustment of an object image;

5 a focus lens drive device which drives said focus lens;

a photoelectric conversion device which converts an object image formed by said focus lens into an electrical signal;

10 an extraction device which extracts a signal that corresponds to a high-frequency component of a luminance signal of an object from an output signal of said photoelectric conversion device; and

a control device which makes a scan operation
15 that stores outputs from said extraction device at respective step positions while driving said focus lens in predetermined steps within a focusing range, and extracts a first position corresponding to the stored outputs of said extraction device, and driving said
20 focus lens to the first position obtained by the scan operation,

wherein said control device changes the number of times of the scan operation in accordance with a state of an instruction device which instructs to start a
25 photographing operation.

2. The apparatus according to claim 1, wherein when the state of the instruction device designates start of

the photographing operation, the number of times of the scan operation is set to be smaller than the number of times of the scan operation when the state of the instruction device does not designate start of the photographing operation.

3. The apparatus according to claim 1, wherein the step interval is changed in correspondence with the state of the instruction device.

4. The apparatus according to claim 3, wherein when the state of the instruction device designates start of the photographing operation, the step interval is set to be smaller than the step interval when the state of the instruction device does not designate start of the photographing operation.

5. The apparatus according to claim 1, wherein the state of the instruction device is detected upon completion of the scan operation, and the number of times of the scan operation is changed in correspondence with the state of the instruction device.

6. The apparatus according to claim 5, wherein when the state of the instruction device designates start of the photographing operation, the number of times of the scan operation is set to be smaller than the number of times of the scan operation when the state of the instruction device does not designate start of the photographing operation.

7. The apparatus according to claim 1, wherein the state of the instruction device is detected during the scan operation, and the number of times of the scan operation is changed in correspondence with the state of the instruction device.

8. The apparatus according to claim 7, wherein when the state of the instruction device designates start of the photographing operation, the number of times of the scan operation is set to be smaller than the number of times of the scan operation when the state of the instruction device does not designate start of the photographing operation.

9. The apparatus according to claim 1, wherein the state of the instruction device is detected during the scan operation, and the step interval is changed in correspondence with the state of the instruction device.

10. The apparatus according to claim 9, wherein when the state of the instruction device designates start of the photographing operation, the step interval is set to be smaller than the step interval when the state of the instruction device does not designate start of the photographing operation.

11. The apparatus according to claim 1, wherein the state of the instruction device is detected during the scan operation, and the scan operation is ended in correspondence with the state of the instruction

device.

12. A method for making an image recording apparatus execute an automatic focusing process, the image recording apparatus comprising a focus lens used to
5 make focus adjustment of an object image, a focus lens drive device which drives the focus lens, a photoelectric conversion device which converts an object image formed by the focus lens into an electrical signal, an extraction device which extracts
10 a signal that represents a high-frequency component of a luminance signal of an object from an output signal of the photoelectric conversion device, and an instruction device which instructs to start a photographing operation, the program comprising:

15 making a scan operation that stores outputs from the extraction device at respective step positions while driving the focus lens in predetermined steps within a focusing range, and extracts a first position corresponding to the stored outputs of the extraction
20 device, executing a process for driving the focus lens to the first position obtained by the scan operation, and changing the number of times of the scan operation in accordance with a state of the instruction device.

13. A computer readable storage medium storing a
25 program actualizes a method of claim 12.